

Testimony for SB616

Finance Committee

March 15, 2022

Position: Favorable with Amendments

Submitted by: Dave Arndt

Dear Chair and Members of the Committee,

As a resident of Baltimore, MD, I am writing to express my strong support of SB616 with amendments which will make sure that our subsidies for renewable energy through the Renewable Portfolio Standard are going toward actual renewable energy. We are in a climate crisis, and we cannot afford to be spending our renewable energy money on facilities that emit greenhouse gasses - now is the time to double down Maryland's commitment to truly renewable energy and subsidize only facilities that are emissions-free.

Trash incineration should never have been included in Tier 1 of the RPS. Trash incinerators pollute more than coal per unit of energy produced, and emit significant quantities of greenhouse gasses and local harmful air pollution: much of their energy comes from burning plastic, a fossil fuel. In the original design of the RPS program, incinerators were included in the Tier 2 category that was to phase out in 2019, but in 2011 as community pressure was mounting against two new proposed incinerators in Baltimore and Frederick, the industry got itself added to Tier 1. Ultimately, the community opposition won, and neither facility was built, but \$36 million in RPS subsidies still goes to incineration each year.

Other types of burning waste or manufacturing methane must come out of the RPS for the same exact reasons as trash incineration. Burning chicken litter, and wood waste and manufacturing methane all pollute the environment, harm nearby communities' health, and contribute to climate change: a bad investment of public dollars that every Maryland utility ratepayer contributes to. Every Renewable Energy Credit that goes toward a facility that emits greenhouse gasses is a Renewable Energy Credit taken away from a facility that does not - an egregious waste of public money.

Because of the inclusion of these polluters in the Renewable Portfolio Standard, Maryland ratepayers paid over \$246 million since 2008 to buy Renewable Energy Credits from facilities that emit greenhouse gasses. The Public Employees for Environmental Responsibility estimates that if nothing changes, those costs will mount to half a billion dollars subsidizing polluters by 2030. Please support HB11 so that those dollars can go toward supporting wind, solar, hydro, and geothermal power - not greenhouse gas emissions.

The Baltimore region ranks among the worst in the U.S. for air pollution. Baltimore has two active trash incinerators and decades of pollution from both active and decommissioned industrial factories. A study by the Chesapeake Bay Foundation in 2017 found air quality in the region was ranked moderate or worse one of every three days, according to the EPA's Air Quality Index. The same study notes poor air quality triggers asthma and can cause other health issues. Little wonder then that children in Baltimore City have asthma at twice the rate of the rest of the country, and the hospitalization rate for pediatric asthma is one of the highest in the nation, as a 2017 report by the Environmental Integrity Project showed.

The private-equity-owned Bresco/Wheelabrator incinerator—recently rebranded, or greenwashed, as WIN Waste Innovations—is alongside six communities of color and low-income communities, which fits a pattern of environmental and social injustice around the world. The Bresco incinerator has been burning around 700,000 tons of waste every year for 35 years and is the city’s single worst air polluter. The Chesapeake Bay Foundation study found that the illness and ailments caused by air polluted by the incineration alone cost \$55 million a year in health damages to residents. This is just one of the heavy costs dumped on Black and poor residents by a private corporation. Because Maryland classifies incineration as recycling, Bresco receives state subsidies for renewable energy—nearly \$10 million over the past six years. In addition, Baltimore pays an extra \$52 per ton to burn trash.

Community Impact

When I do Composting Workshops at schools, I ask if they are affected by asthma and cancer. The response is that 98% of the students have asthma, and several of their family members have cancer. At this point, to illustrate the effects to me, the teacher opens a desk drawer, and pulls out a storage bag full of inhalers. Most of these schools can’t field a youth athletic team due to the students having compromised respiratory issues.

Subsidizing dirty energy is a bad deal for Maryland.

- In 2020, about 25% of Maryland’s Renewable Energy Credits came from polluting energy sources that are still a part of the RPS, such as municipal solid waste burned to produce electricity and woody biomass or debris burned in power plants and paper mills. An additional 11% of Renewable Energy Credits went to black liquor, which the General Assembly deleted from the RPS in 2021 - now it’s time to finish the job.
- Maryland RPS program spends millions of dollars on a Virginia biomass facility that is too dirty to qualify for Virginia’s own recently-enacted RPS.
- Maryland allows credits for burning “biomass gas” from DC’s Blue Plains wastewater treatment plant, which makes fertilizer from sewage sludge with extremely high levels of toxic per- and polyfluoroalkyl Substances (PFAS) that is sold to the public for a profit.
- Most RPS facilities are located outside of Maryland provide no energy to Maryland energy suppliers. Trash incinerators in Maryland provide less than 1% of all of Maryland’s electricity. There loss would not be noticed in Maryland.
- Emissions from dirty energy sources in the RPS overwhelm emission reductions from truly renewable energy. In its 2019 [report](#) reviewing the RPS in response to 2017’s HB1414, the Maryland Department of Natural Resources found that our state’s RPS “has played a small role” in emissions reductions, and had nothing to do with most of the reductions in CO2 emissions we have seen in the past two decades. As of 2017, grid-wide CO2 emissions per megawatt hour , “PJM-wide CO2 emissions per MWh in 2017, the latest year available, were approximately 0.8% lower than they would have been absent the Maryland RPS, assuming all retired RECs supported resources that would not have operated otherwise.” Under the status quo, Maryland’s RPS is not doing enough to drive down greenhouse gas emissions.

- In its 2019 [report](#) reviewing the RPS in response to 2017's HB1414, the Maryland Department of Natural Resources found that the pollution from combustion-based energy sources included in the RPS is so great that Maryland RPS energy sources, on average, pollute as much or more SO₂ and NO_x than the grid as a whole - pollutants that significantly contribute to asthma and other health hazards.

Subsidizing trash incineration and landfill gas tilts the playing field against healthier, cheaper waste management.

- When the RPS was created in 2004, trash incineration was in "Tier 2" of the RPS and received lower subsidies than the actually renewable energy in Tier 1, and those smaller subsidies were to be phased out by 2019. It wasn't until 2011, in response to intense industry pressure, that incineration was made permanently a part of the same subsidized category as wind and solar.
- New trash incinerators were proposed for Baltimore City and Frederick and Carroll Counties, but residents campaigned and prevented them from being built because of the enormous pollution burden and economic costs they would have brought. In Baltimore City and Montgomery County, home of Maryland's remaining incinerators, residents are actively campaigning to close them as well.
- To produce the same amount of energy, Maryland's two subsidy-receiving incinerators emit higher levels of mercury, lead, nitrogen oxides (NO_x), carbon monoxide (CO), and carbon dioxide (CO₂) than Maryland's coal plants. In 2015, the BRESKO incinerator in Baltimore emitted about twice as much greenhouse gases per amount of energy produced, on average, as each of the coal plants located in Maryland.
- In 2020, the most recent data available, 61.5% of Maryland's RPS subsidies for trash incineration went to an incinerator outside of Maryland in Lorton, VA.
- Artificial subsidies make incinerators seem artificially cheaper compared to methods of managing our waste that produce neither pollution nor energy: like composting, repurposing, and source reduction. Although trash incineration and producing methane from waste receive RPS subsidies for producing energy despite their pollution impacts, composting is better for the environment than either. [According to the EPA](#): "composting lowers greenhouse gases by improving carbon sequestration in the soil and by preventing methane emissions through aerobic decomposition, as methane-producing microbes are not active in the presence of oxygen." 50% of the average municipal waste stream can be composted.

Subsidizing methane production locks Maryland into leaking greenhouse gas emissions and pollution from poultry factory farms

- In the anaerobic digestion of factory farm waste, animal waste and other materials are fed into a digester where it is broken down by specialized methane-producing microorganisms that can only thrive in the absence of oxygen. Chicken waste is a dry solid, and doesn't normally emit significant amounts of methane outside of the conditions of a digester.

- No matter the source, burning methane produces CO₂. Furthermore, it is an even more potent greenhouse gas in and of itself when it leaks into the atmosphere - a huge and undercounted problem. Studies show that in 2015, leaks along the natural gas supply chain were approximately 60% higher than the U.S. Environmental Protection Agency inventory estimate. [[Earthjustice paper](#), page 5, [research paper](#)]
- Since the construction of biogas facilities is extremely costly, they are generally not profitable without subsidies and incentives. ([FWW Fact Sheet](#)) The inclusion of biogas in our RPS provides an unwanted financial incentive to add new greenhouse gas emitting technology to our grid under the guise of renewable energy - on the public's dime.
- Sending animal waste to a digester creates methane but does nothing to mitigate the significant air quality issues associated with factory farms. Additionally, the anaerobic digestion process leaves behind a toxic digestate that must still be disposed of. [Studies](#) have shown that the effluents include highly concentrated amounts of nitrogen(ammonia) and phosphorus that when spread on fields causes increase stream and Chesapeake Bay pollution
- The production of methane from organic matter through anaerobic digestion has been used as an excuse for expanding and entrenching dangerous LNG infrastructure.
- The poultry industry is good for making profits for Perdue/Tyson. By the way Tyson reported fiscal 2021 profit of \$3 billion, a 48% gain from the previous year. Perdue reported sales revenue of \$8 billion. What we need is something that could: strengthening state enforcement and oversight of an industry that produces over 600 million pounds of manure ever year in Maryland while earning billions of dollars in revenues.

Burning woody biomass turns carbon sinks into climate problems

- A recent [Harvard School of Public Health Study](#) found that biomass and wood have the fastest-growing share of early deaths in the major energy-consuming sectors; burning wood for electricity produces as much or more pollution than fossil fuels, including coal. Biomass facilities emit high levels of particulate matter (PM), nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), lead, mercury, and other hazardous air pollutants.
- Although trees regenerate, newly planted trees have far less benefit to the climate and local air quality than a mature tree or a fully-functioning forest ecosystem. Burning trees releases CO₂ into the air immediately, and the carbon isn't recaptured unless and until newly planted replacement trees grow to maturity over many decades.
- In 2020, the most recent data available, 97.3% of Maryland's RPS subsidies for burning woody biomass went to facilities outside of Maryland.

For all of these reasons and many more, please support SB616 with amendments and end "renewable energy" subsidies for greenhouse gas emitting energy sources in Maryland.

Thank you.

Dave Arndt

Retired Chemical Engineer and Climate, Environmental and Social Justice Advocate